

ABSTRACT

In order to provide a low noise laser beam, a noise reducing feedback network is provided which creates a noise reducing signal and provides that signal to the laser itself. In order to produce the noise reducing signal, the operation of the laser is monitored and the feedback signal is a direct result of this monitoring. Monitoring is accomplished by a fast-forward sense detector, which receives a portion of the laser beam from the operating laser. The output from this fast-forward sense detector is provided to an amplifier which inverts and amplifies the signal. A noise reduction feedback network then receives the amplified signal, appropriately filters this signal, and provides it to the laser itself so as to reduce noise in the laser-beam for the frequency band of importance for reading the recorded data from the optical medium. The noise reduction feedback signal further has sufficiently high impedance so as to not disturb the traditional CW operation of the laser and to avoid interference with the traditional RF modulation of the laser.